ABSTRACT OF THE DISCLOSURE

This invention relates to novel multibinding compounds (agents) that are antibacterial agents. The multibinding compounds of the invention comprise from 2-10 ligands covalently connected by a linker or linkers, wherein each of said ligands in their monovalent (i.e., unlinked) state have the ability to bind to a an enzyme involved in cell wall biosynthesis and metabolism, a precursor used in the synthesis of the bacterial cell wall and/or the bacterial cell surface thereby interfere with the synthesis and/or metabolism of the cell wall. In particular the multibinding compounds of the invention comprise from 2-10 ligands covalently connected by a linker or linkers, wherein each of said ligands has

a ligand domain capable of binding to penicillin binding proteins, a transpeptidase enzyme, a substrate of a transpeptidase enzyme, a beta-lactamase enzyme, pencillinase enzyme, cephalosporinase enzyme, a transglycoslase enzyme, or a transglycosylase enzyme substrate; Preferably, the ligands are selected from the beta lactam or glycopeptide class of antibacterial agents.

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